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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,322	11/04/2003	Ki-Sang Kim	5649-840DV	5293
20792 7590 04/09/2007 MYERS BIGEL SIBLEY & SAJOVEC PO BOX 37428 RALEIGH, NC 27627			EXAMINER FOX, CHARLES A	
			ART UNIT	PAPER NUMBER
			3652	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/09/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/701,322	Applicant(s) KIM, KI-SANG	
	Examiner Charles A. Fox	Art Unit 3652	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 January 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-11 and 13-16 is/are pending in the application.
- 4a) Of the above claim(s) 5-9 and 14-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,10,11 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,4,10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 11-145243 in view of Howells et al. and further in view of Bonora et al. Japanese Patent 11-145243 teaches a device for conveying wafer cassettes along a plurality of wafer processing devices aligned along an axis, said device comprising:

a horizontal conveyor (111) positioned adjacent to and below the plurality of process devices;

a vertical conveyor (112') for raising the wafer cassette from the horizontal conveyor to the process device's load ports;

said vertical conveyor forming a hollow housing and further comprising gripping arms (71) which extend towards one another and hold a common wafer carrier;

a controller for automatically moving the various components of the overall system automatically;

wherein the conveyors operate within a clean area. Japanese Patent 11-145243 does not teach using screw actuators for the vertical lift device or explicitly teach hollow housings at each process device or gripping the side of the container. Howells et al. US 6,183,186 teaches a process device (12) with a loading station (10) comprising:

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a housing;

an inlet in said housing for accepting transported wafer cassettes;

an elevator (20) for lifting and lowering wafer cassettes (16). Howells et al. also does not teach gripping the sides of the container. Bonora et al. US 5,570,990 teaches a device for handling common wafer containers with a pair of grasping arms (112) that grasp the sides of a common wafer container.

It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Japanese Patent 11-145243 with individual load housings as taught by Howells et al. in order to decrease the amount of clean area the production facility will require and to further provide the grasping arms as taught by Bonora et al. to allow the device to grasp various shaped containers thereby reducing operating expense for the overall facility as well as increasing the types of containers handled by the facility.

Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 11-145243, Howells et al. and Bonora et al. as applied to claims 1 and 10 above, and further in view of Narisawa. Japanese Patent 11-145243 teaches the limitations of claims 1 and 10 as above, it does not teach the horizontal conveyor as being a roller conveyor. Narisawa US 5,904,239 teaches a roller conveyor (12) for use in a clean room. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Japanese Patent 11-145243, Howells et al. and Bonora et al. with a conveyor as taught by Narisawa in order to decrease the

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amount of debris generated by the conveyor, thus making it easier to maintain a high cleanliness level in the transport area.

***Response to Amendment***

The amendments to the claims filed on January 22, 2007 have been entered into the record.

***Response to Arguments***

Applicant's arguments with respect to claims 1 and 10 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed January 22, 2007, with respect to the 35 U.S.C. 112 rejections have been fully considered and are persuasive. The previous 35 U.S.C. 112 rejections of claims 1,2,4,10,11 and 13 has been withdrawn.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

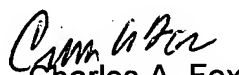
This application contains claims 5-9 and 14-16 drawn to an invention nonelected with traverse in Paper No. 20050728. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Fox whose telephone number is 571-272-6923. The examiner can normally be reached on 7:00-4:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on 571-272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

 4-2-07  
Charles A. Fox  
Primary Examiner  
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